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Application No.:	**10/050,944**
Filing Date:	**January 22, 2002**
First Named Inventor:	**Russell A. Houser**
Attorney Docket No.:	**13513-006001**
Examiner:	**Hau Van Phan**

Please find enclosed:
(1) Response to Office Action Dated September 9, 2004 with a petition for a one month extension of time.

Please contact the undersigned at (609) 240-1086 if there are any questions.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Russell A. Houser et al. Art Unit : 3618
Serial No. : 10/050,944 Examiner : Hau Van Phan
Filed : January 22, 2002
Title : Athletic devices and other devices with superelastic components

Commissioner for Patents
Washington, D.C. 20231

RESPONSE TO OFFICE ACTION DATED SEPTEMBER 8, 2004

In view of the following remarks, reconsideration and allowance of this application are requested. Claims 13, 15-21, and 25-36 are pending with claims 26-29 and 31-34 being withdrawn from consideration. Claims 13, 31, and 35 are independent.

Claim 13 is directed to a ski or snowboard that includes a housing and a superelastic component configured and positioned with respect to the housing to provide an elastic response of the ski or snowboard to a deflection. The superelastic component includes at least one outwardly extending flexible outside edge that extends outwardly beyond the housing and is positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing.

Claims 13, 15-21, 25, 30, 35, and 36 are rejected as being obvious over Julien (U.S. Patent No. 6,267,402). Julien discloses skis that use various superelastic components for various purposes. For example, Figs. 1 and 2 illustrate a ski or snowboard that includes two superelastic components 32, 34 positioned, and completely encapsulated, within the ski or snowboard. The two superelastic components of Figs. 1 and 2 are not continuous along the entire length of the ski or snowboard. Julien indicates that the purpose of the superelastic components in Figs. 1 and 2 is to provide damping of the vibration and chattering of the skis by flexing and staining the component as a consequence of the flexing of the ski. See Col. 3, lines 13-15 and 47-49.

In Fig. 3, Julien discloses replacing the nitinol strips 32, 34 with nitinol wires 40 in width-wise tubes 42 for providing damping to the skis. In Fig. 3, Julie also discloses a superelastic edge piece 100 that appears to be functionally continuous along the entire length of the ski or snowboard. As stated by Julien and recognized in the Office Action, the edge pieces 100 "provide superior edge holding ability and to be immune to rust and corrosion."

Applicants submit that Julien does not describe or suggest a ski or snowboard that includes a superelastic component that includes (1) at least one outwardly extending flexible outside edge that extends outwardly beyond the housing and (2) that is positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing, as recited in claim 13.

First, Julien's edge piece 100 does not extend outwardly beyond the housing, as reicted in claim 13. As illustrated in Fig. 3, the edge piece is bounded along and flush with at least one edge at the end of the ski. Thus, the edge piece cannot be said to extend beyond the housing. Fig. 3 also does not show the edge piece extending outwardly. Instead, Fig. 3 shows the edge piece extending downwardly from the base of the housing rather than outwardly from the side of the housing.

Second, as recognized in the Office Action the superelastic component disclosed in Fig. 3 of Julien cannot be said to be positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing. The Office Action asserts that it would have been obvious to modify the edge piece 100 of Fig. 3 to use the superelastic components 32, 34 of Fig. 1. Applicants respectfully disagree because the use for which components 32, 34 would be provided are satisfied by components 40. Specifically, the superelastic components 32, 34 are used in Fig. 1 to provide damping of the vibration and chattering of the ski. Similarly, the superelastic components 40 are used in Fig. 1 to provide damping of the ski. In contrast, the superelastic edge piece 100 is used to "provide superior edge holding ability and to be immune to rust and corrosion."

The Office Action suggests that one of skill in the art would have modified the edge piece 100 to use the components 32, 34 to improve maneuvering of the ski along a curve. However, the components 32, 34 are used for damping rather than maneuvering and the ski of Fig. 3 already has components 40 for providing damping. Julien even teaches using fewer components 40 if the damping is excessive. See Col. 3, lines 47-49. Thus, even if there was a motivation to use the components 32, 34 in the ski of Fig. 3, the components 40 already satisfy the need for which the components 32, 34 could be used. As such, an argument can be made that the use of components 40 teach away from using the components 32, 34 in the ski of Fig. 3.

Similarly, Figs. 9-11 disclose a superelastic component positioned within the front of the ski or snowboard to dampen vibrations. However, Julien does not describe or suggest a ski or snowboard that includes a housing and a superelastic component that includes at least one outwardly extending flexible outside edge that extends outwardly beyond the housing and is positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing.

Fig. 5 illustrates a ski/snowboard with a Nitinol base 95 that is illustrated as running the entire length of the ski/snowboard. See Col. 2, lines 36-54 and Fig. 5. Again, nothing in Julien describes or suggests the base 95 as being other than continuous along the entire length of the ski/snowboard.

Fig. 6 illustrates a ski/snowboard that has an integral base and edge 110 that is made of Nitinol. The base and edge 110 is disclosed as being formed by plasma spraying on to an aluminum plate 125. See Col. 5, lines 10-24. Again, nothing in Julien describes or suggests the base and edge 110 as being other than continuous along the entire length of the ski/snowboard.

Figs. 7 and 8 illustrate a Nitinol edge piece 152 "extending longitudinally along both of the ski edges . . . and having a bottom surface 154 flush with the bottom surface 156 of a ski base sheet 160." See Col. 5, lines 25-35 and Figs. 7 and 8. Again, nothing in Julien describes or suggests the Nitinol edge piece 152 as being other than continuous along the entire length of the ski/snowboard.

Figs. 1 and 2 disclose a ski/snowboard that include a Nitinol component embedded within the ski/snowboard. See Col. 3, lines 8-17 and Figs. 1 and 2. Nothing in Julien describes or suggests the Nitinol component as being an outwardly extending flexible outside edge that extends outwardly beyond the housing.

Figs. 9 and 10 illustrate a ski/snowboard that includes a Nitinol component embedded within the ski/snowboard. The component is described as having "arms 182 extending along the two oblique axes and terminating short of the longitudinal edges of the ski." See Col. 5, line 62 through Col. 6, line 7 (emphasis added). The arms are disclosed as being over the top of the ski. Thus, nothing in Julien describes or suggests the component of Figs. 9 and 10 as being characterized as being an outwardly extending flexible outside edge, as recited in claim 13.

Fig. 11 illustrates a ski/snowboard that has a Nitinol structure in the form of a ribbon wrapped in a double helix around the core of the ski. See Col. 6, lines 8-21. Nothing in Julien describes or suggests the ribbon of Fig. 11 as being characterized as being an outwardly extending flexible outside edge, as recited in claim 13.

For at least the above reasons, the rejection of claim 13 as being obvious over Julien should be withdrawn. Claims 15-21, 25, and 30 depend from claim 13 and are allowable at least for the same reasons that claim 13 is allowable and for being independently patentable.

For example, dependent claim 16 recites the superelastic component being a positioned at a bottom surface of the ski or snowboard and having a curvature between opposite outside edges. The ski of Fig. 5 does not disclose a curvature between opposite outside edges. While the outside edges curve upwardly at the front of the ski, neither Fig. 5 nor the specification describe or suggest a curvature between opposite outside edges. For at least this additional reason, claim 16 is allowable over Julien.

Dependent claim 18 recites the superelastic component being removably mounted to the ski or snowboard. The Office Action points to col. 4, lines 40-45 for showing the superelastic component being removably mounted. That passage, however, describes removing dents or grooves from a shape memory component by heating the superelastic base 95 with blow drier or a pressing iron. Nothing in this passage indicates that the superelastic base is removed from the ski to perform this heating step. For at least this additional reason, claim 18 is allowable over Julien.

Claim 35 is directed to a controllable ski or snowboard that includes a house and one or more superelastic components. Like claim 13, the superelastic components of claim 35 extend outwardly and downwardly from the housing and the superelastic components deflect in response to an application of a force to one or more of the superelastic components. The one or more superelastic components are positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing. The superelastic components are positioned on opposite edges of the ski or snowboard and extend outwardly beyond the housing.

Claim 35 is allowable at least for the reason claim 13 is allowable. Namely, because claim 35, like claim 13, recites a ski or snowboard that includes a housing and a superelastic component that includes at least one outwardly extending flexible outside edge that extends outwardly beyond the housing and is positioned at either or both of the front of the housing and the rear of the housing in a functionally noncontinuous manner between the front of the housing and the rear of the housing.

Claim 36 depends from claim 35 and is allowable at least for the reasons that claim 35 is allowable.

Applicant respectfully submits that all claims are condition for allowance. Applicants also petition as a small entity for a one month extension of time extending from December 8, 2004 to January 8, 2005. Authorization is given to apply any charges or credits to Deposit Account No. 502923.

Respectfully submitted,

Date: December 25, 2004

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